MAY 1985

DRIVER

TEST YOUR SEAT BELT I.Q.

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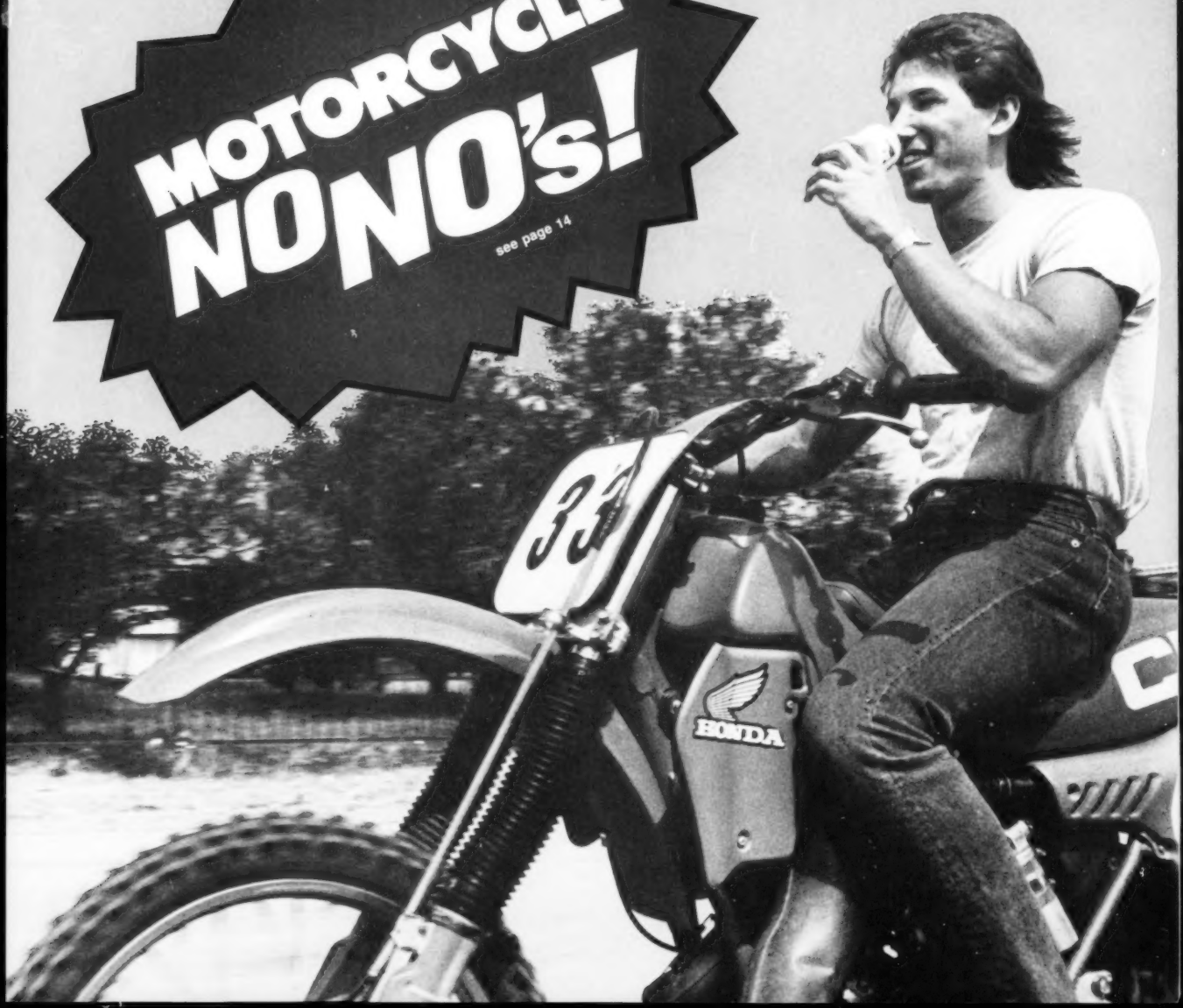
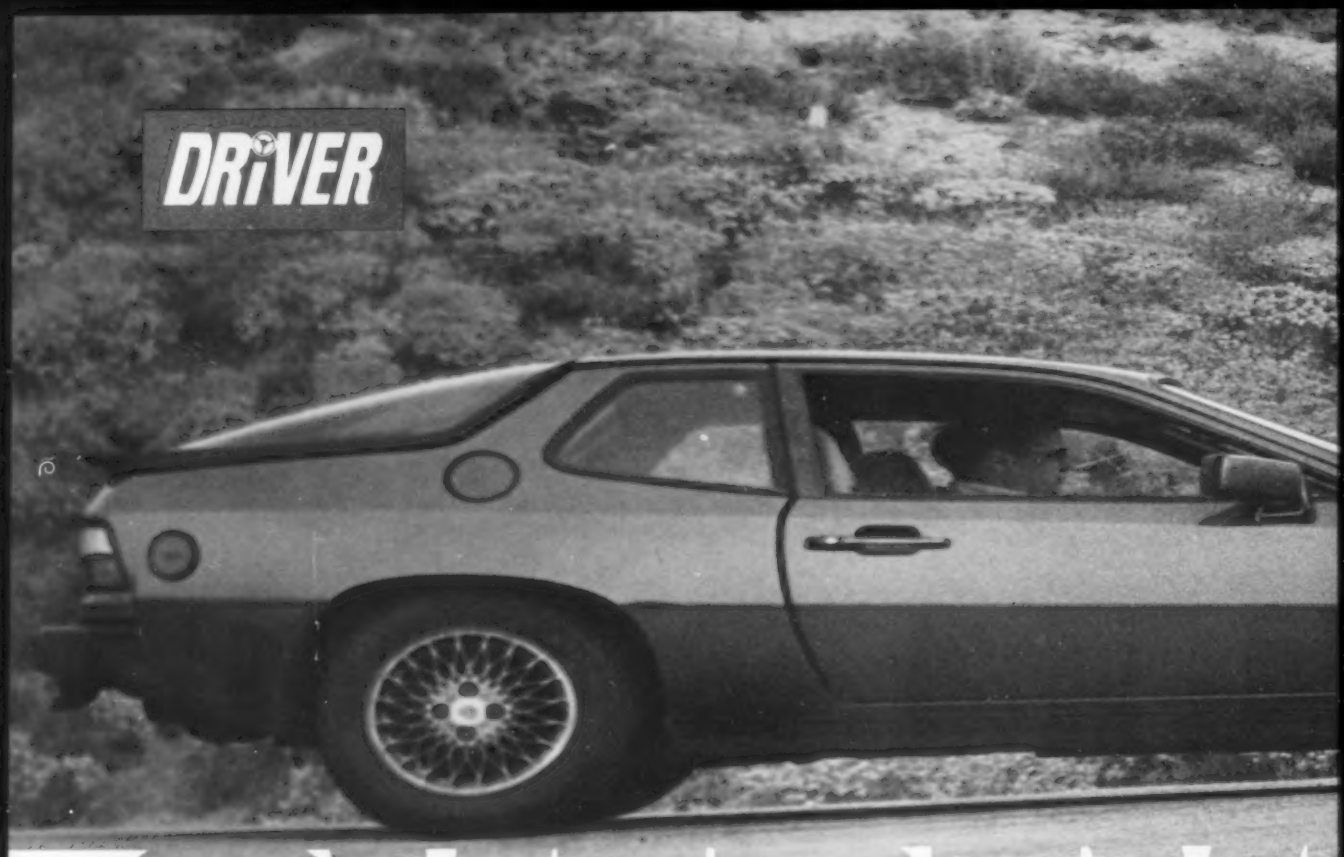
MOTORCYCLE NO NO's!

see page 14





OVEREX

Picture this: You're on a ladder painting the house. You have been working all day and are weary of the job. You feel like you have moved the ladder hundreds of times and you don't want to do it again for the small amount of painting you have to complete. You dip the brush in the can and lean far over to the right to reach the remaining area. You lose your balance, fall off the ladder, and you're left hanging from the gutter.

Or this: You have spent the winter sitting in front of the television watching every imaginable sport. Now it's spring and you want to participate, not just watch, so when some friends invite you to join them for a picnic and a game of softball, you eagerly accept. You play first base for several hours and the next morning you feel like someone has beaten you all over with the baseball bat.

Do you see any similarity between these two examples? They both illustrate the danger of going too far or doing too much, what we might call "overextension." We usually think of overextension as spending more money than we have in the checking account, and what we want to discuss here is similar. It is the practice of overextending oneself physically.

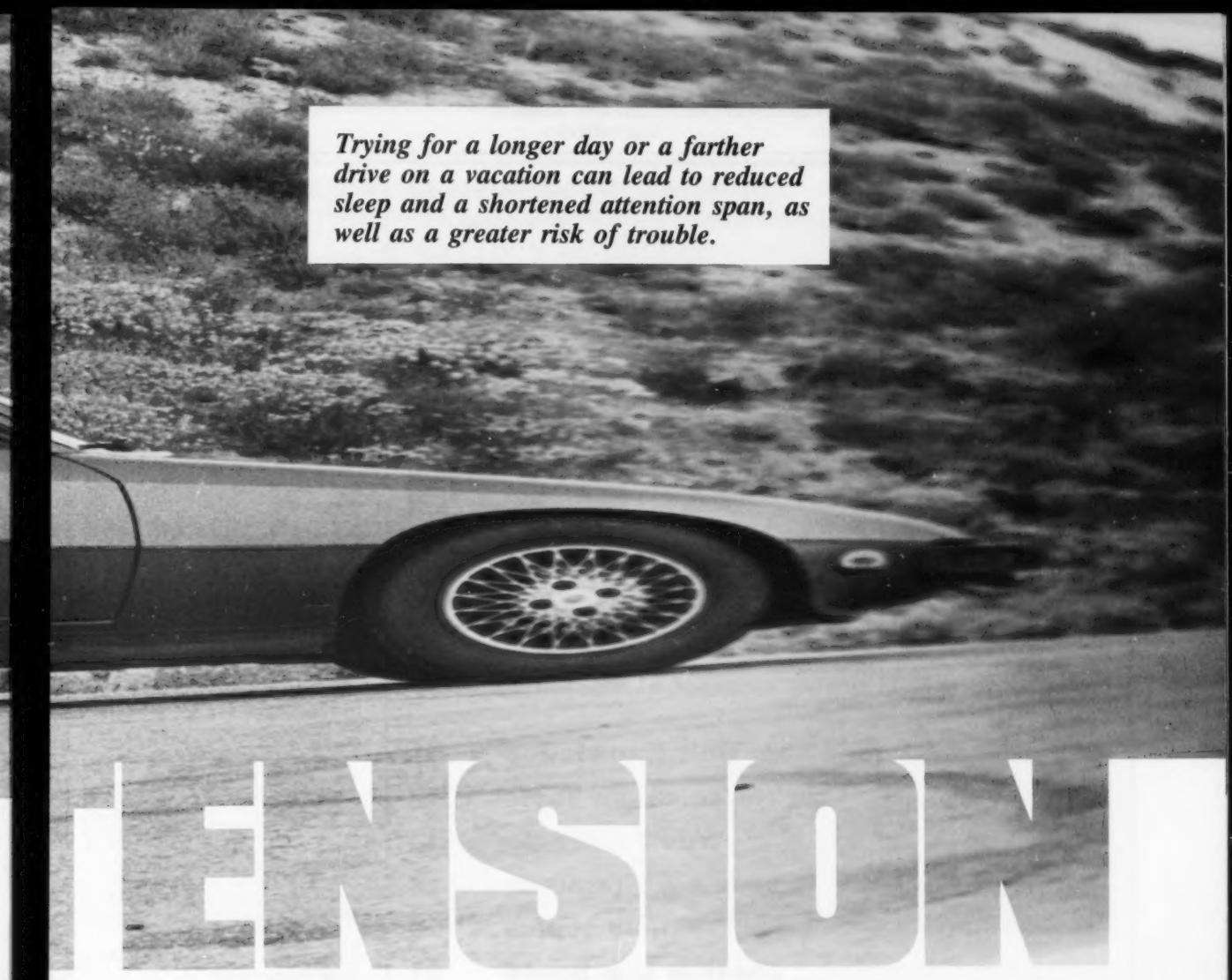
This is especially important, because now is vacation time for a lot of us. Our physical limit — that of our ability to stay behind the wheel and drive alert and safely — should determine how far we can go even more than our limited time and money. Any long distance trip, whether it is to the mountains or the ocean, or to visit friends and family, should allow for that physical limit. If we overextend ourselves we might leave ourselves hanging like in the first example, or feeling beat up like in the second.

Or we might just not get there. Here is a real-life example.

LONG DAY'S JOURNEY INTO . . .

An airman fell asleep at work. He was cautioned by his supervisor because he had just driven over 800 miles from another base without a rest stop, arriving only an hour before he was due to start work.

About three weeks later, the airman again requested leave to visit the other base. He was given a briefing and told not to leave until the next morning. He was also told not to drive farther than 300 miles without a rest stop. Instead, he left



Trying for a longer day or a farther drive on a vacation can lead to reduced sleep and a shortened attention span, as well as a greater risk of trouble.

TENSION

at 2100 hours that night.

About 0530 the next morning he was driving north on a divided highway nearly 500 miles from his starting point. The amount of time and distance show that he could not have stopped for longer than it took to fill his gas tank during the whole trip.

A southbound witness saw what happened next. The airman's car was driving in the dirt on the right shoulder of the road. The witness saw the car swerve across the northbound lanes. Then it entered the center dirt divider in a broadside skid. The car rolled three times, end over end, and landed on its wheels. During the rolling, the airman was ejected from the car and killed.

The investigating officers determined the airman had fallen asleep at the wheel. They figured he had awakened, found his car was on the shoulder, and then overcorrected in attempting to steer back onto the road. At that point he lost control of the car.

This is a classic case of overextending oneself. It is easy to understand why he fell asleep at the wheel. After working a full day he started an 800-mile trip without any rest, and he drove all night without a stop. In his condition, a drive of any length would have overextended him.

We have all overextended ourselves at one time or another. We have driven too far into the evening, or without adequate rest, or whatever. It seems we never have enough vacation time to do what we want to do or go as far as we would like. (That makes it very hard to plan a lengthy trip, and makes it important to plan a trip around our limitations.)

BED AND BORED

First let's look at the problems of overextending yourself, and then we'll suggest some plans to avoid those problems.

Of course, the main problem with overextending yourself is fatigue. The airman with the 800-mile trip encountered this problem, and lost his life because of it. Drivers so often overtire themselves that we will spend some time discussing ways to fight the fatigue problem.

But first let's look at a related problem — monotony.

Studies have shown that the longer the drive, the slower will be the reaction time to an emergency situation. Driving performance deteriorates the longer the driv-

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After so long on the road, you will begin to feel very strange. Get out and get your blood circulating properly.

er is in place in the seat. A long drive becomes monotonous and the driver's attention wanders from the road. At that point, he could react incorrectly, or too slowly, to an emergency situation.

When a long drive becomes dull, the driver's thinking will tend to become dulled as well. The driver falls victim to "highway hypnosis," and the condition this describes is similar to a trance. The sameness of the road causes the driver's thinking to drift away from driving. The driver stares out the windshield so long without any variety in the field of vision that his or her mind goes into neutral and driving is done largely on reflexes. It is easy to see how dangerous this can be.

You have all had the experience of staring at something so long that you cease to see it. It usually happens when there is nothing very interesting going on. Then, another person will have to actually startle you to get your attention.

Likewise, when you are driving and the view ahead becomes monotonous, your mind will begin to shut it out and concentrate on other matters. If an emergency situation presents itself then, your reactions will be slowed that much more, perhaps beyond the point of safety.

Both fatigue and monotony must be kept under control if you expect to arrive safely wherever you're going. Let's look at some practical ways to keep the sandman at bay.

MAKE A PLAN

Having a safe and non-tiring vacation will take more forethought than just tossing a suitcase in the trunk and aiming the car at the horizon. Develop a plan for your trip. Plan it not only around the distance you have to travel but also the limitations of your endurance. That is, don't overextend yourself like the driver in the true story. He had set himself up with too long a trip and he tried to drive it all in one sitting.

The trouble with driving until the point you feel you must stop is that this point is a very subjective judgment. Also, as we have said, your performance gets worse the longer you drive. You could easily push yourself too hard and fall asleep at the wheel, ending up in an accident.

It would be much better to set an arbitrary limit to the amount of time you'll spend behind the wheel. This includes both the total time for the day, and the

continued

Fatigued is no way to start a vacation and it's no way to drive safely. Start out when you are completely fresh, allowing for adequate rest along the way, to insure you will stay awake at the wheel.

time for each leg of the trip during the day.

For instance, let's say you have 700 miles to travel. That doesn't sound like a lot, but that would make two days of 350 miles each, or seven hours at the wheel at 50 mph. That still might not sound too bad, but you have to allow for stops for meals, and stops for gasoline, and stops just for the sake of remaining alert.

Set an arbitrary limit of no more than two hours of driving between stops. Then pull over for a short time and get out of the car. Stretch and walk around for a while. If you're traveling with another person, let him or her take the next turn driving. If you're going it alone, make sure you are stretched out and comfortable before you sit down and turn the key again.

By the way, planning involves knowing what's ahead so you are not unnecessarily delayed. Such things as bad weather or bad road conditions ahead — even accidents — could force you to extend your driving day and overextend yourself. Call the weather service and the highway patrol to get their information on what to expect. Plan your trip around any hazards that might slow you up.

STOP AND MOVE

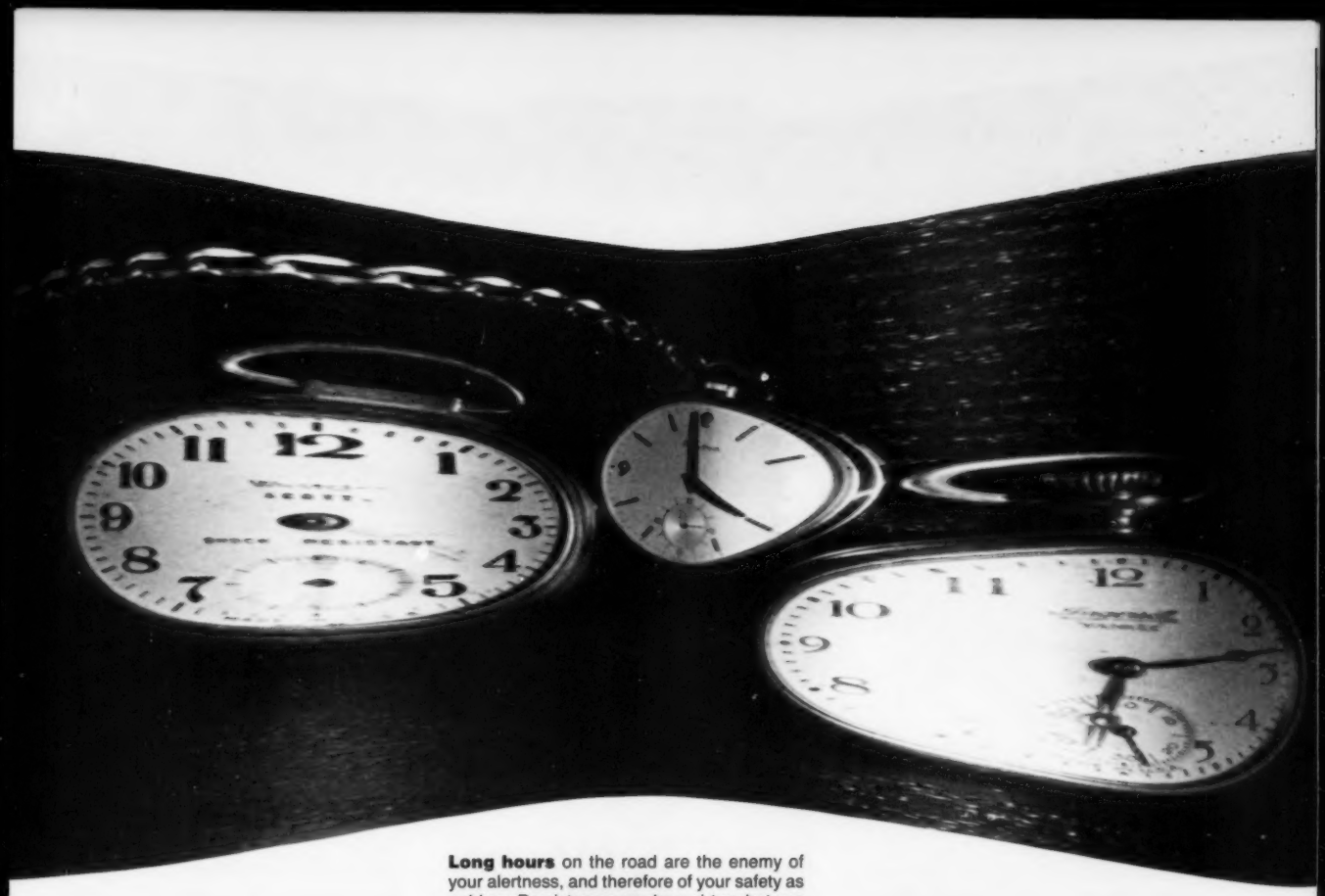
To repeat, get out of the car at your stops. Don't be like the driver earlier in this article, who probably got out only long enough to shove a few gallons in the gas tank.

If you don't get out and move around, your body will be cramped, stiff and sore from the lack of movement. Further, the lack of movement will promote sleepiness. Compare it to spending an evening at home in front of the television set: Watching a lot of boring programs will put you to sleep. Likewise, sitting at the wheel gazing at boring countryside will also put you to sleep.

When you get out of the car, do some light exercise like stretching and walking around. Your body will feel better and your circulation will increase, giving your brain some badly needed oxygen. When you return to the car you will be revitalized for the next leg of the journey.

END ZONE

What is the most common vacation pattern for finding a place to sleep? This: You realize you are tired and begin to look for a stopping place — usually long after the sun has set and the lodges are



Long hours on the road are the enemy of your alertness, and therefore of your safety as a driver. Persistence may be a virtue, but use your memory to tell yourself not to drive for more than a couple of hours at a time without a rest.

all full. You add stress and frustration to the fatigue with each "no vacancy" sign you drive by. When you finally find a room, you are angry as well as tired. Although you sleep soundly, you wake up the next morning still feeling a little worn out.

What is a better pattern for fighting this particular fatigue producer? Plan your trip around the end points for each day. If you will be staying in motels, get a motel guide from your auto club and select a motel at an appropriate point on the route. Call ahead for a reservation.

Plan to stop early enough to have your evening meal and then relax before you go to sleep. You need that time to unwind from the day's drive because sleep alone won't fully recharge your body's batteries.

If you're traveling with a trailer or camper, or if you plan to camp out some other way, check the route for established campgrounds. Call them for reservations.

Reserving your place to stay for the night will remove another small worry that could interfere with your driving. After all, you wouldn't fly somewhere without first making sure you had a bed at your destination, so why take a chance when you're motoring?

COMFORTABLY COOL

Your comfort as you drive is an important factor in enabling you to remain alert. But you have to walk a fine line with some things, like warmth for instance.

If you are comfortably warm, you can keep your mind on the driving. Any warmer than that you might get drowsy, like you do when bundled up in bed under a nice electric blanket.

So let us explain what we mean by "comfortably warm." For driving purposes, it is better to remain on the comfortably *cool* side, just warm enough so that you think about the road and not the temperature, but cool enough so your mind is sharp. Here, the car's air conditioning system could be considered a kind of safety feature on hot days, keeping you from being drowsy or irritable.

UP AND AT 'EM

The comfort of your spine can be a good indication of when you are overextending yourself. Fatigue often shows up first in the lower back. Therefore, give your back a break (figuratively). Adjust the seat back so your driving posture is upright behind the wheel. If the seat itself doesn't provide the proper support for your lower back, slip in a small cushion.

Don't slump down behind the wheel. You can't maintain efficiency very long when you are slumped down with your knees up around your ears. Sit upright and grasp the wheel lightly with both

continued

Strrreeeeetch all those cramped muscles when you get out of the car at the rest stops. You will feel more alert and able to continue the journey.

hands. (Grasping the wheel too firmly can also add to the muscle strain.)

To help you remain upright, use your seatbelt and shoulder harness. Wear the belt snugly over the hips (not the stomach) and adjust the shoulder harness so it's just loose enough to slip a hand between it and your chest. Not only will the belt ease your back by helping you sit up straight, it will also hold you in place during quick maneuvers of the car and therefore help you maintain control.

SEEING THE PROBLEM

Eyestrain can sometimes be a contributing factor to overextending yourself. Staring out through the windshield for long periods of time will cause your eyes to get very tired. Bright sunlight can add to this problem, when you will have a tendency to squint to compensate.

A good pair of sunglasses will cut down on the glare from direct sunlight and from light reflecting off the road or water or the glass and chrome of other cars.

For the general problem of eyestrain, keep your eyes moving. Movement will give them a rest, just like getting out of the car and moving around will give your body a break. Sweep your eyes from left to right and back. Read all the road signs. Consult your mirrors often.

This changing of visual focus will do more than just keep the eyes rested. It will also keep the mind more active by varying the visual input to the brain. If you catch yourself staring, it's time to stop and get out for a little while.

VARIABLE SPEED

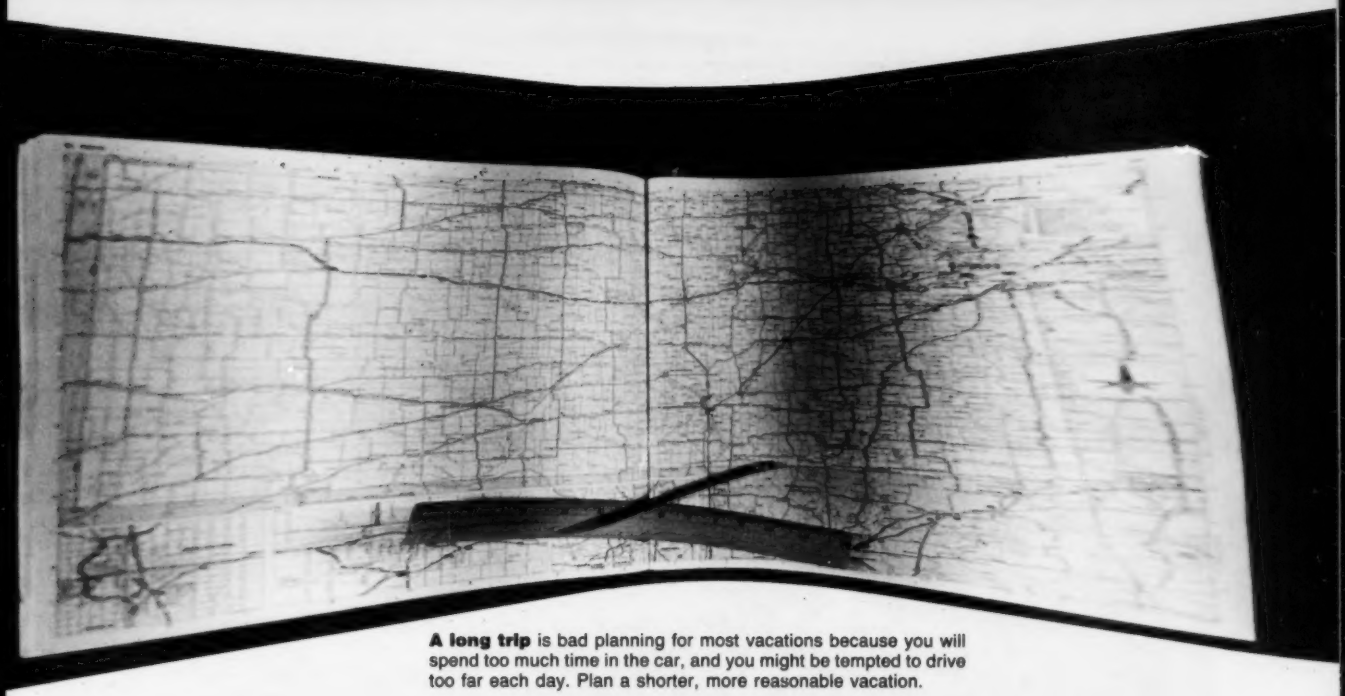
Traveling at the same speed for a long time can hypnotize you. It's the lack of variety again — the same speed, the same drone of the tires on the road, the same sound of the air rushing past, etc. So vary your speed — not a lot, just enough so you don't get used to a constant 55 (or whatever).

Following other cars steadily can have a similar hypnotizing effect — not to mention that this lets *them* decide *your* traveling speed, and most people exceed the national speed limit. Give other traffic plenty of room, and travel at your own speed.

SHARE THE WHEEL

Perhaps the easiest way to fight overextension and fatigue is to have help. That is, have someone else along to take over the driving for you.

Especially on long vacation drives, it is unwise to travel alone. No one person can expect to remain at peak efficiency for several hours at the controls of a car. Once fatigue or monotony sets in, the



A long trip is bad planning for most vacations because you will spend too much time in the car, and you might be tempted to drive too far each day. Plan a shorter, more reasonable vacation.

driver is overextended and needs to become a passenger.

With another person in the car, you can share the time at the wheel. Change seats at regular intervals, with each person driving not more than a couple of hours at a time.

When you stop to change drivers, do more than just have one person slide across the seat while the other goes around and gets back in. Both people should get out and move around, stretching and exercising a little. This will wake the passenger up for his or her turn driving, and it will relieve the tension in the driver's body so he or she can rest more comfortably.

OUTSIDE ASSISTANCE

The passenger should do all he or she can to keep the driver alert. Talk to the driver and keep his or her mind active. Make sure the conversation is light. Arguments and heated discussions can take the driver's attention away from the road just as quickly as monotony can.

Do everything you can as the passenger to aid the driver. Handle the roadmaps. Look for places to stop for gas and food. Watch the driver's condition and beware of the blank stare. If you notice your partner is staring out with nonmoving eyes, he or she could be ready for a turn in the passenger seat. Mention the fact and suggest you take the wheel.

As passenger, you can sleep a little to rest up for your next turn as driver. But remember, part of your job is to keep the driver alert, so don't sleep for long periods of time. Further, if you must sleep a lot perhaps you are overextended yourself, and the two of you should find a place to stop for the night.

This applies especially to those folks who try to take very long drives without

continued

Glare can create headaches and cause eyestrain. Keep your sunglasses handy.

Boring drives can mesmerize you faster than a professional hypnotist. To avoid the condition of "highway hypnosis" keep your eyes moving and focusing on different things.

stopping. Three people might be able to travel farther without stopping by switching turns at the controls. However, the passengers will not get good sleep in a moving car. They might wake up, get behind the wheel, and immediately go into a hypnotized state. There are many cases of several people in a car, all asleep, when the driver also dozes off and runs off the road. Marathon team-drives are, to put it mildly, unwise.

DANGEROUS ADDITIVES

You should always avoid the things that will interfere with your ability to remain alert. One of these things is alcohol. Alcohol has an anesthetic effect on your whole body, including the brain. If you drink while driving, you will relax too much, even if you just drink a little. Alcohol increases the reaction times and slows down the reflexes. Further, alcohol will increase you chances of falling asleep, especially if you are overextended to begin with.

You should even avoid alcohol at the end of the day. It is very easy to overdo drinking, and then your performance the next day will suffer.

Other things to avoid are certain kinds of food. What you eat, and how much, can affect your alertness in the car. To many Americans, a satisfying meal means the quantity of food — the more the better. If you think like that, you should put yourself on a diet for the driving vacation.

After a big meal, the strongest impulse you have is to take a nap. This is a normal reaction of the body, but it doesn't help you when your immediate task is to reach your night's lodging 250 miles away.

Therefore, eat light meals before you get in the car. Avoid heavy foods and fried stuff. Those may be good for a backyard cookout, but they're like sleeping pills on the highway. If you eat lightly, you may want to stop more frequently for another snack, and that's good. Stop whenever you feel the need for a break.

GOING IT ALONE

If you have to drive a long way by yourself, you can still make it a safe trip if you remember the methods we've cited before. Don't drive too far in one day. Stop frequently. When you do, get out of the car and stretch. Keep your eyes moving and your mind active. Eat lightly. Vary your speed.

But you still have the problem of keeping your brain from switching off and nobody to help you. If the road doesn't supply the necessary variety (or if it's too dark to see much) you have to do something to keep your mind active.

The radio is good for this purpose. Turn it on to a station with some loud, fast music. The "easy listening" stations play stuff that is so soothing it is almost "music to fall asleep by." You can sing along with the loud music. (After all, you're alone; who'll hear you?)

You could even talk aloud to yourself, reading the signs on the road.

Whatever tricks you use to keep alert, do them *before* you begin to get tired. Don't wait until you begin to get drowsy to play mental alertness games, because by that time it's really too late. You won't be able to tell when you are too tired to drive.

THE LONG AND SHORT

If we can give you just one piece of advice to avoid overextending yourself, it is this: Plan your trip around a minimum of distance and a maximum of rest. The airman in the early part of this article did just the opposite. Please don't make the same mistake.

Every day before you start out on your vacation drive you should do a few quick vehicle checks to insure that your car will deliver you to your next stop safely.

An ounce of vacation breakdown prevention.

Before You Start Out . . .

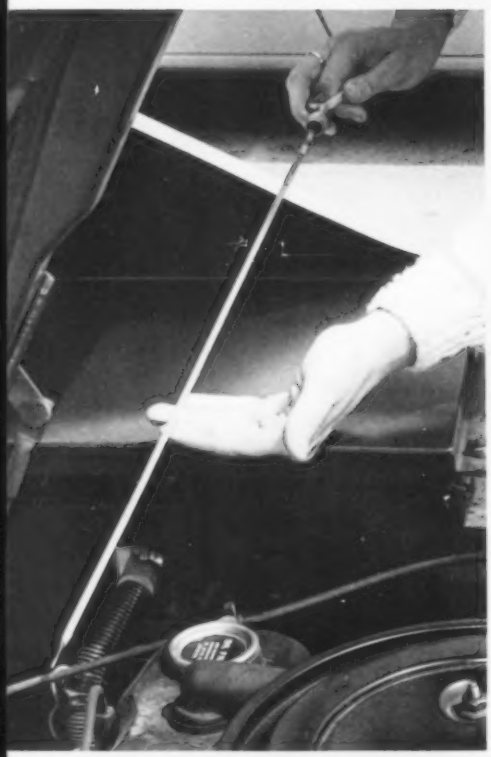
more

Tires are your only contact with the road and should be checked for the proper inflation as well as wear. If you can see the top of Lincoln's head on a penny inserted in the tread, it's time to replace the tire.

Make sure all your lights and signals are working properly.

(left)
Check the coolant level and look for signs of fluid leaks.

(above)
A low brake fluid level points to braking problems that should be solved before it's too late.



(left)
You should check engine oil level at every stop during your trip. When you're doing this first thing in the morning, don't forget to check the transmission and power steering fluid levels as well.

(above)
Some batteries have built-in testers such as this, while others require that you remove caps to check the fluid levels.

Test Your Seat Belt Knowledge

1. If a shoulder belt fails to lock when pulled, it isn't working.

2. Lap and shoulder belts, when properly used, cut the chances of being killed or seriously injured in a crash by 50 percent.

3. The longer the trip, the more likely it is that people will use safety belts.

4. Using safety belts is your best defense against drunk drivers on the road.

5. Campaigns to urge people to wear seat belts voluntarily are more effective than laws requiring belt use.

6. In countries where seat belt use is mandatory, highway deaths have declined by about one-fourth.

7. By using a seat belt, a driver has better control of the vehicle, increasing chances of avoiding collisions.

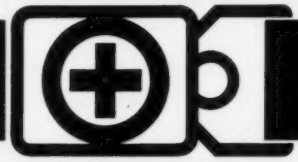
8. Most people who don't use seat belts now wouldn't use them if a belt law were passed.

9. People riding in front seats account for over 90 percent of the passenger car deaths that occur each year in motor vehicle accidents.

10. Seat belt use laws in every state could save more than 8,000 lives a year.

11. If my car had air bags, I wouldn't need to wear a seat belt.

12. A seat belt law would violate my personal freedom to choose between protecting myself or not.



ANSWERS

1. **FALSE.** Modern safety belts are designed to allow you freedom to reach, bend, or stretch, except in an emergency, such as a panic stop or crash. Then, the belt "locks up" automatically, holding the wearer firmly in place.

2. **TRUE.** In fact, 50 percent is a *conservative* estimate. Many studies show the use of lap-shoulder belts to be 60 percent effective in saving lives and preventing serious injuries.

3. **TRUE.** Many people who don't use their seat belts going to work or shopping will wear them on long trips. But 3 out of 4 car crashes actually happen within 25 miles of home!

4. **TRUE.** 23,500 people were killed in 1983 in alcohol-related traffic crashes. Wearing a seat belt can protect you and your loved ones should you be hit by a drunk driver.

5. **FALSE** Over the years, efforts to persuade motorists to voluntarily wear seat belts have not resulted in widespread belt use. The National Highway Traffic Safety Administration has said, "It appears highly unlikely that mass media campaigns can produce voluntary belt usage in excess of the 20 to 30 percent range." Belt use laws, on the other hand, typically result in a 70 to 95 percent usage rate.

6. **TRUE.** In 1984, U.S. Secretary of Transportation Elizabeth Dole said, "The case for safety belts is persuasive. In 29 foreign countries where seat belt use is mandatory, highway deaths have declined by an average of 25 percent."

7. **TRUE.** Drivers who use seat belts remain behind the steering wheel and are in position to control vehicle direction in emergencies. Best evidence is the experience of race car drivers who would not consider racing without buckling up.

8. **FALSE** Safety experts estimate 70 to 80 percent of people who do not now buckle up are generally law abiding, and, for the most part, would use belts if the law required it.

9. **TRUE.** Traffic Safety Now, Inc., which promotes increased seat belt use, says the figure is 92 percent.

10 **TRUE.** The Highway Users Federation estimates that if 80 percent of Americans regularly wore their belts in 1983, 8,100 lives would have been saved and 319,000 injuries would have been avoided.

11. **FALSE.** Even in cars equipped with air bags, use of seat belts is needed to prevent ejection from the car, to keep you in position for the restraining function of the air bag, and to keep you from being thrown around the car's interior in side collisions or rollovers when the bag does not deploy.

12. **FALSE.** Freedom does not include the liberty to take unreasonable risks with one's own life or the lives of others on public roads and streets. It is in the public interest for states to regulate the safe use of motor vehicles through traffic laws, driver licensing, vehicle safety standards, and seat belt use requirments.

courtesy of Highway Users Federation

5 MORE NHTSA CRASH TEST RESULTS

VEHICLE	SPEED/WEIGHT	HIC Driver/Pass	CHEST G'S Driver/Pass	FEMUR LOADS Driver left/right	FEMUR LOADS Passenger left/right
CHEV. S-10 BLAZER 2-Dr 4x4	35.0 / 3900	1036 / 1320	62 / 43	1040 / 1000	425 / 155
CHEVROLET SPECTRUM 2-Dr Hatchback	34.8 / 2346	1559 / 960	51 / 56	223 / 402	476 / 345
VOLVO DL 4-Dr Sedan	34.7 / 3400	651 / 310	36 / 25	350 / 1020	590 / lost data
VOLVO DL 4-Dr Wagon	34.6 / 3590	621 / 262	33 / 31	100 / 1005	630 / 615
NISSAN MAXIMA 4-Dr Wagon	34.9 / 3760	1014 / 1500	63 / 38	1155 / 945	720 / 430

The National Highway Traffic Safety Administration (NHTSA) recently released results of five more crash tests involving 1985 motor vehicles. The test results are part of the federal safety agency's experimental New Car Assessment Program (NCAP).

NHTSA is testing a total of 40 motor vehicles in its 1985 program. The test results of 11 other vehicles were announced earlier (see March and April 1985 DRIVER).

All the vehicles were crashed in frontal tests at 35 mph into a fixed barrier. This is five mph faster than the prescribed speed for compliance with federal motor vehicle safety standards. The crash tests are designed to indicate, for vehicles within the same size class, the relative levels of occupant protection and vehicle safety performance.

NHTSA said that while the test results are indicative of relative crash protection provided to occupants wearing safety belts, it is important to emphasize that, in the government's crash test program, only one car of any given make and model is crashed in a specific test. Subsequent crash test results for any vehicle could vary because of differences in the way cars are manufactured and equipped or due to slight variations in test conditions.

Instrumented dummies are used in all tests, and they are protected by the vehicles' standard safety belt system. The head, chest and upper legs of the dummies are equipped with instruments which monitor impact forces and accelerations.

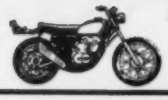
The head acceleration is used to calculate the head injury criterion (HIC), a measure of the potential for head injury. In general, the lower the HIC, the less likely the occupant would be seriously injured or killed in a frontal crash at 35 mph.

A HIC value of 1,000, a chest deceleration of 60 G's and a femur (thigh) load of 2,250 pounds indicate approximate threshholds above which serious injuries are expected.

Other aspects of safety performance also are monitored, including whether the vehicles retain the windshield during the crash, prevent displacement of vehicle parts into the windshield area and maintain the integrity of the entire fuel system to prevent leakage of fuel in a crash. Of the five most recently tested vehicles, only the Nissan Maxima four-door wagon failed any of these tests. (The Maxima did not retain its windshield.)

The experimental NCAP began in 1979. The agency is continuing to examine several aspects of the program, such as the variability in test results and the relationship of these tests to real world accidents, in order to improve crashworthiness information provided to consumers.

The accompanying chart shows the test results for the five most recently tested vehicles.



TRUE ACCIDENTS

Following are a few reports of accidents involving Air Force members. We have removed names and references to dates and places.

PASS ON RIGHT

A sergeant was out with his roommate drinking at a bar. They decided to ride their motorcycles to another bar, and they split up on the way there. At 2125, the sergeant was traveling south on a street that was posted for 30 mph. The street was wide enough for parking on both sides. The lighting in the area was excellent. As he approached an intersection, he saw a car ahead apparently preparing to make a left turn onto the intersecting street. He went to the right to go around the car, but he swung too wide and before he could get back to the traffic lane he hit the back of a parked van. He was not wearing a helmet and his head hit the rear of the van hard enough to leave an imprint of his glasses on the metal. He was declared dead at the hospital from massive head injuries. The driver of the car he passed stated that he thought the sergeant was traveling over the speed limit. The medical examiner found his Blood Alcohol Level was .21. The investigation showed the sergeant had bought the motorcycle less than a month before and had never attended Air Force Course VII, Motorcycle Challenges. He had little experience riding a motorcycle.

PUSHING A CAR

About 0150, an airman, his wife and some friends left a night club in two cars and started back toward their base on a divided highway. The airman was in the lead. When the other car stalled in the left lane, the airman turned back to help, parking off the shoulder of the highway. He and one of the passengers of the other car were attempting to push the car off the road, with the airman pushing from behind. A pickup truck came from behind them and hit the airman, crushing him between the car and the pickup. He was taken to a local hospital where he was declared dead in the intensive care unit about two hours later.

ALCOHOL

An airman had just graduated from technical school and stopped at his home to visit his family on his way to his new base. He was picked up at the airport by his brother and three friends. The airman drove the car as they went out to celebrate. They dropped off one friend. At about 0147 he was driving at high speed when he lost control of the car and hit a fire hydrant and then a telephone pole. All four men in the car died. The investigation showed the airman was driving under the influence of alcohol.

UTILITY POLE

A staff sergeant was driving his car south on a road at about 0230 hours on a winter night. He was on leave between assignments, driving to his new duty station. The road was wet but not icy. The sergeant was under the influence of alcohol and he was speeding. He came to a slight right-hand curve in the road and he failed to negotiate the curve because of his speed. His car went off the roadway on the left side and crashed into a utility pole. The force of the impact broke the pole in two. The sergeant suffered head and internal injuries and was pronounced dead at the scene by the coroner.

SAVED BY THE BELT

Three Air Force members, two sergeants and an airman, were driving back to their overseas base after an evening out drinking. The passenger in the right front seat was wearing his seatbelt; the driver and the back seat passenger were not. At about 0030 hours they were nearing the base when they came to a sharp right-hand curve in the road. They only made part of the turn before going off the left side of the road. The car flipped and rolled several times, coming to rest 350 feet from the point it left the highway. The driver was thrown out and received fatal internal injuries. The back seat passenger was also thrown out and he received fatal head injuries. The front seat passenger, who had his seat belt fastened, received only minor cuts and bruises. The autopsy performed on the driver showed a Blood Alcohol Content (BAC) of .206, more than twice the legal level of intoxication.

HIGH SPEED AND ALCOHOL LEVEL

A sergeant was upset about some personal difficulties and was given the afternoon off by his supervisor. Sometime after 1330 hours the sergeant began drinking. At about 1830 he was alone, driving south at high speed on a road posted for 45 miles per hour. He skidded off the road, traveled over 500 feet and then returned to the paved roadway. He overcorrected in getting back on the road and went across the center line into the northbound lane. His car was hit broadside by a northbound car. Both drivers were taken to the hospital. The sergeant was pronounced dead at 1935 from multiple extreme injuries to the head and chest. There was room for him to have survived in the car, but he had not worn his seat belt. The other driver wore his seat belt and was treated for multiple bruises and released. The sergeant's Blood Alcohol Level (BAL) tested at .236, but the coroner thought it was probably higher because the sergeant had received five pints of blood in the emergency room.

PEDESTRIAN

An airman left the dormitory of her overseas base at 1155 hours to walk to a nearby wooded area to take some photographs. She was waiting at a straight stretch of narrow, two-lane road with a speed limit of 60 mph. Traffic in the near lane was coming from her right. When there was a gap in traffic, she ran to the middle of the road. She saw traffic coming from her left and hesitated, then turned back toward her right. She apparently realized she could not go back that way, as more cars were coming. The driver of the lead car coming from the left saw her and swerved to the left to avoid her, but just then she turned back toward the woods and ran across the other half of the road. She ran directly into the path of the driver who had just swerved to miss her. He hit her with the right front side of his car. She received multiple injuries and was declared dead at the scene. The accident investigators decided her view of the traffic from the left was blocked until she was in the middle of the road. They also determined that had she remained in the middle of the road the traffic would have missed her because cars from both directions swerved away from her.

Off-road motorcycling can be fun if you dress properly, know your machine, know the terrain, and avoid alcohol.

Off-Road MOTORCYCLING

Over the ankle boots are a must for off-road riding, as are long-sleeved shirts and long pants.

Off-road motorcycling is an enjoyable, safe pastime when a few basic rules are followed. Basically, the most important rules are: dress properly; know your machine and the terrain; and avoid alcohol.

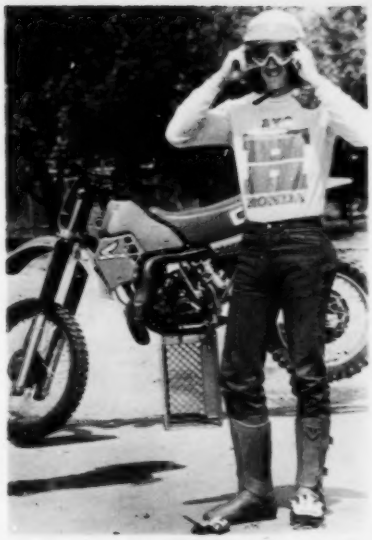
When it comes to clothing, off-road riders start by emphasizing "heavy-duty" for those items of attire that are also worn street-riding, and then adding specialized equipment.

Long-sleeved shirt and long pants made of strong, durable materials such as denim or corduroy are the minimal clothing requirements. Of course, there is a specialized apparel made of nylon with padding added where necessary. Loose or floppy clothing must be avoided because it can become entangled in the motorcycle's machinery.

Sturdy leather boots that rise well up the calves are the best footwear. A good heel is required to help keep the rider's feet on the pegs. Better ankle support is provided by lace-up or strap-type boots than by those with zippers or that slip on.

Of course, wearing a helmet when riding any motorcycle at any time is only common sense. For both comfort and protection, the helmet must fit snugly but not tightly. And since a loose helmet is no protection, the chin strap must be securely fastened.

A helmet must fit snugly but not tightly.



Eye protection comes in a variety of forms. Whatever you wear should be shatter-proof and free of scratches.

There are numerous specialized items for off-road riders including this device for keeping big rocks and small birds out of one's mouth. It does not, however, provide the same face protection a full-face helmet does.

Helmets come in a variety of styles offering different levels of protection including full-face coverage. Riders should always buy the best helmet they can afford, but remember that helmets are only good for one impact. One good head-thumping tumble and the helmet will have to be replaced. For that matter, if you drop your helmet you may have already used up its protective life.

As with helmets, eye protection comes in a variety of forms and styles. Personal preference for face shield or goggles will usually determine the type of eye protection worn. Both will protect eyes against dirt, insects, water and small stones which might interfere with visibility. They will also reduce eye fatigue caused by squinting.

Eye protection devices should always be made of shatter-proof material and be free of scratches which can distort vision. Remember, regular eyeglasses were never meant to be eye protection on a motorcycle. They can be worn under shields or behind special goggles, as can sunglasses to avoid eye fatigue because of bright sunshine.

Leather gloves not only protect the rider's hands, they also improve his or her grip on the handlebars. In addition, gloves prevent hands from growing cold, tired and sore. Gloves should fit snugly, but not too tightly.

Knowing the motorcycle one is riding as well as the terrain being ridden over will help prevent calling all the safety de-

continued

Off-road racers often wear enough protective equipment to shame even the best football players.

vices and protective clothing into play and make for a more enjoyable time. For example, jumping a motorcycle over a small hill only to find out the other side is actually a large cliff can produce a painful landing for both rider and machine.

There are critical skills involved in off-road riding. Riders have to be able to: negotiate hills (both going up and coming down); ride on off-camber surfaces; deal with different surfaces such as sand, rocks, mud, deep water, and even snow and ice; handle obstacles and ruts.

It is not DRIVER's intent to cover the critical operator skills necessary for off-road riding in this story. However it must be pointed out that the subject is off-road riding and that many off-road motorcycles are not licensed for on-street use. Therefore, off-road bikes should not be operated on streets.

Similarly, just because a rider has developed the skills necessary to operate a motorcycle off-road doesn't mean that s/he can ride one on the streets. As with the machine, in most states the rider must either have a separate motorcycle license or a motorcycle endorsement on his or her regular license to operate a motorcycle on public roads. It goes without saying that this applies to those too young to have driver's licenses as well.

As stated many, many times before: drinking alcohol and riding motorcyles don't mix on- or off-road. Many riders believe they can have a few drinks without affecting their skill. But, even at low levels, alcohol can affect skills critical to riding such as vision, coordination and ability to react.

One or two standard-size drinks, whether they are 12-ounce beers, five-ounce glasses of wine or cocktails, affect mental processes such as restraint, awareness, concentration and judgment. In addition reaction time is slowed. Also, one or two drinks will create an inability to perform complicated tasks such as braking, reacting to environment, being aware of riding surface changes, selecting proper turning speed, positioning and performing evasive maneuvers.

Three to four drinks will affect depth perception, glare recovery, eye movement and focus as well as decrease judgment and control. Critical motorcycle riding skills that will be impaired after three to four drinks include scanning, night vision, shifting and throttle control.

After five drinks (less than a six-pack), the rider's coordination has deteriorated, s/he has lost critical judgment and her/his memory and comprehension has been impaired. The additional vital riding skill that has been impaired after five drinks is balance.

Of course the restraint of using alcohol while riding should be applied equally to other drugs (prescription, over-the-counter, and recreational). Regardless of whether it is an "upper," a "downer," a beer or a shot of whiskey, all drugs impair mental or physical (or both) processes — some immediately, while others have delayed effects. Because the coordination and awareness necessary to ride a motorcycle allow no room for impairment of any kind, all drugs including alcohol should be avoided when riding.

Most people ride motorcycles off-road because they enjoy close contact with the machine and the riding environment. The use of alcohol or other drugs before riding can only inhibit that relationship. A lack of intimate knowledge of the machine and terrain can also ruin the relationship. And not wearing the proper safety equipment can turn any minor spill into a major disaster.

Gloves protect the hands as well as improve the rider's handlebar grip.

Knowing the terrain is just as important as knowing your motorcycle when it comes to riding off-road. Rounding a corner among trees only to find a fence or other barrier could add a new meaning to "dead-end."

These rules apply equally to three-wheeled cycles, too.

There are a number of wrong ways to ride an off-road bike including illegally without the proper street registration and driver's license endorsement on public roads. Cut-offs, sandals and no shirt at all would be worse, but only by a small degree.

(right)
Alcohol and motorcycling don't mix on or off the road!

Knowing the critical riding skills combined with the proper safety equipment and no alcohol or drug impairment can make off-road motorcycling an enjoyable pastime.

HERE'S MORE DRIVER'S LICENSE REQUIREMENTS IN THE USA

LOUISIANA

Nonresident operator's license honored. Visitor is permitted to use valid home state license for 90 days.

Licenses issued to military personnel remain valid during stay in service, if stationed outside of Louisiana, and for 60 days after discharge. Copy of discharge form (DD-214) required to validate expired licenses.

MAINE

Maine license and registration required within 30 days of declaring or establishing residency.

Nonresident license honored on reciprocal basis; visitor's permit not required.

License of military personnel honored for 30 days after honorable discharge. Resident military personnel on active duty may be licensed without payment of fee upon request.

MARYLAND

Nonresident's license honored on reciprocal basis. New resident must obtain Maryland driver's license 30 days after establishing residency.

Nonresident students enrolled in an accredited Maryland or adjoining state school, college, or university, or serving a medical internship, are exempt from obtaining Maryland registration, or driver's license, provided their home state extends the same privileges to Maryland residents.

Military personnel with valid home state driver's license at time of entry into service may use such license while in service and for 30 days after discharge or reassignment to this state. Nonresident military personnel and their dependents may use home state driver's license if vehicle retains home state registration and license authorizes operation of type of vehicle being operated in Maryland.

MASSACHUSETTS

Nonresident license honored on a reciprocal basis. Massachusetts license must be obtained immediately upon establishment of legal residence.

Military personnel whose license expired while in the military service may operate on this license until 60 days after honorable discharge. Nonresident military personnel may use driver's license of state of legal residence if home state extends expiration date.

MICHIGAN

Nonresident licensed in home state may operate motor vehicle in Michigan. Visitor's permit not required. Operator's license must be purchased immediately if residence is established.

Resident military personnel license valid until 30 days after first military leave or discharge, following expiration.

Nonresident military personnel and students may use home state driver's license.

MINNESOTA

Nonresident is permitted to use a valid operator's license from home state. Can drive any vehicle regardless of state vehicle registration. Operator's license must be secured within 60 days if permanent resident is established.

Military personnel having valid Minnesota license upon entry into service, license remains valid up to 90 days after discharge or release.

MISSISSIPPI

Nonresident must obtain Mississippi license after 60 days, unless tourist, out-of-state student, or military personnel.

Military personnel may renew driver's license by mail or in person upon return from service with payment of the regular fee.

MISSOURI

Nonresident's license honored on reciprocal basis; visitor's permit not required. Missouri driver's license must be obtained when residence in Missouri is established.

Missouri military personnel may renew driver's license by mail without examination if on duty outside state. Also, may apply for new license without examination within 60 days of discharge.

MONTANA

Nonresident's license honored. Montana license must be secured within 90 days. All valid licenses from other jurisdictions must be surrendered when Montana license is issued.

Military personnel having a valid Montana license upon entry into service may use such license until 30 days following honorable discharge.

Exempt from license: Any person who is a member of the Armed Forces of the United States, while operating a motor vehicle owned or leased to the United States Government and being operated on official business.

NEBRASKA

Nonresident's license honored for a period of 30 days continuous residence.

Special licensing arrangements for resident military personnel and their spouses. License good until 60 days after discharge. Licenses of Nebraska military personnel and their spouses expire 60 days after separation from service.

NEVADA

Nonresidents must obtain a Nevada driver's license within 45 days of becoming a resident as a prerequisite to driving a motor vehicle in this state.

Nonresident military personnel may use out-of-state driver's license if vehicle is registered in another state.

NEW HAMPSHIRE

Nonresident's license honored on reciprocal basis; visitor's permit not required. Also reciprocal up to 60 days for nonresident who establishes domicile within New Hampshire.

NEW JERSEY

Nonresident's license honored on reciprocal basis; visitor's permit not required.

Military personnel with valid New Jersey license at time of entry into service must obtain renewal license prior to expiration.

NEW MEXICO

Nonresident permitted to use home state driver's license in New Mexico.

Military personnel on active duty may use valid home state driver's license. Surrender of valid license issued by another state required upon application for a New Mexico's driver's license.

NEW YORK

Nonresident: License honored. Nonresidents over 18 years of age who have valid licenses issued by their home states may drive in New York State, subject to any restrictions on their licenses, and subject to the laws and regulations affecting motorists in this state. Nonresident licensees who are 16 or 17 years of age may drive in New York State, but are subject to, and must obey, the New York State Junior Operator's Regulations (Class 6 and 8). Out-of-state licensees under 16 years of age are not permitted to drive in New York State, no matter what type of licenses they hold. New York license must be obtained within 30 days after residence is established.

Military personnel: A licensed driver should notify the Commissioner of Motor Vehicles within 60 days of entry into military service. Form MV-75 is available at induction centers and Motor Vehicle Offices. License will be extended for six months after separation of service. Failure to notify Commissioner upon entry into the service may result in difficulty in renewing the license after separation from service.

NORTH CAROLINA

Nonresident's license honored, if 16 years of age or older. Visitor's permit not required. North Carolina license must be obtained within 30 days after establishing residence in state.

Military personnel stationed outside state may renew North Carolina driver's license by mail within 1 year from expiration. Application must be endorsed by commanding officer or other authorized persons and accompanied by doctor's certificate as to physical condition. Other residents temporarily residing outside the state may renew their licenses by mail by making application to the division. "Temporarily" shall mean no less than 30 days continuous absence from the state. Application must be endorsed by doctor and notary public.

NORTH DAKOTA

Nonresident's license honored until 60 days after residence is established; visitor's permit not required.

Nonresident military personnel properly and currently licensed in home state not required to obtain operator's license in North Dakota. Resident North Dakota military personnel, driver license valid for period of 30 days after discharge (or upon return to state).

OHIO

Nonresident's license honored on reciprocal basis; visitor's permit not required. Also reciprocal of nonresident who obtains employment in state and enters children in local school.

Nonresident military personnel and family may use home state driver's license.

Resident military personnel with valid license when entering service need not renew license while on active duty. May renew license within six months after discharge without retesting.

OKLAHOMA

Home state license honored for nonresident. Oklahoma license must be purchased immediately if residence is established.

Oklahoma military personnel on active duty may renew valid license upon payment of regular renewal fee. The expiration date of a valid Oklahoma operator's or chauffeur's license held by military personnel on active duty outside the continental U.S. is automatically extended until 60 days after the military personnel returns to the U.S. No such extension for military personnel serving inside the continental U.S.

Nonresident military personnel may use home state driver's license. Vehicle may be registered in home state or Oklahoma.

OREGON

Nonresident's license honored. License must be obtained immediately if residence is established.

No special licensing arrangements for resident military personnel. Nonresident military personnel may use home state driver's license or license issued by Armed Forces in a foreign country. The latter is valid for a period of 45 days after licensee returns to the United States. Spouse of military personnel on active duty in Oregon may drive on valid license issued by any state.

PENNSYLVANIA

Nonresident's license honored on reciprocal basis. Operator's license must be purchased within 30 days if residence is established.

Nonresident military personnel may use home state driver's license regardless of state in which vehicle is registered.

Military personnel with valid Pennsylvania license on induction into service may use license without renewal while in active service. Same privilege extended to spouse and dependent children of military personnel absent from the state. License valid until 45 days after discharge or return to Pennsylvania.

(To be continued . . .)

Timely Topics

ADULTS TAKING UP AUTO THEFT

What are the chances of getting your car back if it's stolen? Not much better than 50-50, claims a report from the U.S. Department of Justice. The reason is that more and more "professional" criminals have taken up auto theft. Back in 1970, people under age 18 accounted for 56 percent of vehicle thefts in this country, now it's only 40 percent. "This is increasingly becoming an adult crime involving gangs making enormous profits," said a DOJ spokesman. "About one million motor vehicles are stolen in the United States every year." The Justice Department also revealed that in 1970 passenger cars comprised 91 percent of the stolen vehicles, trucks 2 percent, and miscellaneous vehicles 7 percent. But now, automobiles make up only 75 percent of the stolen vehicles, with trucks and buses comprising 14 percent and motorcycles and other types 11 percent. And, meanwhile, the recovery rate had dropped from 84 percent to 55 percent, with the value of unrecovered vehicles increasing tenfold, from $140 million in 1970 to $1.46 billion today.

EYEBALL TEST FOR DRUNK DRIVERS

A new technique has been developed which has the potential to dramatically increase the number of persons arrested for driving under the influence of drugs and alcohol, says the Automotive Information Council (AIC).

Horizontal gaze nystagmus allows a police officer to judge a person's blood alcohol level to within a few hundredths of a percent. Nystagmus refers to involuntary jerking of the eyeball, and is made by the eyes of people intoxicated with alcohol or certain drugs.

In the past police officers have had to rely on routine sobriety tests: ABC's, counting, walking a line and finger-to-nose coordination. If a driver did fairly well on the tests the police generally would release the driver, assuming the driver was only inattentive or tired.

The nystagmus test was developed over the last decade by the Los Angeles Police Department, and is now being taught to other police departments.

An officer moves an object like a pencil past a person's nose toward one ear, looking for jerky eye movements as the eye follows the object. They then measure the angle, in relation to the ear, where the onset of the jerky eye movements began. A formula converts the angle measurement into an estimation of the person's blood alcohol level. Other cues are also used to determine drug or alcohol use. While results of the test are generally not used in court, the procedure helps police officers decide whether a Breathalyzer or other test should be administered, to confirm the person was driving while drunk or under the influence of drugs.

About one half of all highway deaths involve alcohol. This means that about 25,000 people a year die in alcohol-related crashes. The costs of drunk driving accidents to society are estimated to be in the billions of dollars each year when property loss, medical and legal fees and lost wages are measured.

BUY THE RIGHT MOTOR OIL

One of the easiest auto maintenance jobs for any auto owner is to add a quart of oil. It is important that you add or change your oil with the right grade and quality. Unfortunately, many of us don't know what to feed the engine, says the Automotive Information Council (AIC).

Various grades are specified and numbered by the Society of Automotive Engineers (SAE). The numbers refer to the thickness of the oil, called the viscosity. The higher the number, the thicker the oil. The "W" means the oil is suitable for winter temperatures. Multi-grade oils with a range of 5W-30 would cover a wide temperature range.

On quality, you can determine your needs by a rating scale established by the automotive petroleum industries. An "SF" rating means the oil meets warranty requirements for 1981, current and most earlier model years. "SE" oil meets warranty requirements for 1972 through 1980 model years. "SD" takes care of model years 1968 through 1971. "SC" fits 1964 through 1967. "SB" is oil with some minimal additive protection. "SA" is pure mineral oil. "CC" or "CD" means the oil is for use in diesel engines.

There is no mystery connected with matching the right oil for your engine. The owner's manual in your glove box has the answer. Pay attention to it because late model cars have emission controls that require a better quality of oil due to higher operating temperatures.

It's important that you spend your petroleum dollars wisely. Adding a quart of oil to an engine with dirty oil really can't do much for your engine. Follow your manual on how often you need to change the oil. It will give mileage figures or a calendar estimate. Normally, six months is about the time for an oil change regardless of the mileage. Short trips are much rougher on an engine than long hauls.

When you change the oil remember to change the filter. Clogged filters can't keep the oil free of solid matter that can contribute to engine wear.

Remember, too, that quality oils contain additives that protect against wear, rust and high engine temperatures. Those additives do wear out. Keeping the oil fresh and "full" is an inexpensive way to avoid expensive engine repairs.

SEAT BELT FASTENING DEVICE FOR TEENAGERS

Dr. John Clark, a University of Utah professor, believes he has come up with a way to make teenagers fasten their seat belts . . . and so save thousands of lives each year. He has been working on a device that would keep the car radio from working unless everyone's seat belt was fastened. "Teenagers," he says, "get into more accidents, have more fatalities and use seat belts less. And they also listen most frequently to the car radios."

TALKING CARS BOMB WITH BUYERS

Dashboards that talk back to the car owner have been dropped or will be offered only as options by domestic automakers. The electronic voices let consumers know when the door is open, the keys are left in the ignition or if the headlights were left on. All the electronic voices worked as designed, but drivers complained they found the repetitive messages annoying.

AUTO FATALITIES UP

A total of 43,800 people are estimated to have died on U.S. highways last year, up 2.8 percent from 1983, reports the Department of Transportation. While the number of traffic deaths rose last year for the first time in five years, the total number of miles driven by Americans was also up significantly. Total miles driven grew faster than the death rate indicating that certain safety measures are proving effective, states the Insurance Information Institute.

ANOTHER Life saved

Belts are used to do a variety of things from holding pants up to making cars run, but some people tend to neglect to use the belts that can make a difference between life and death, seat belts!

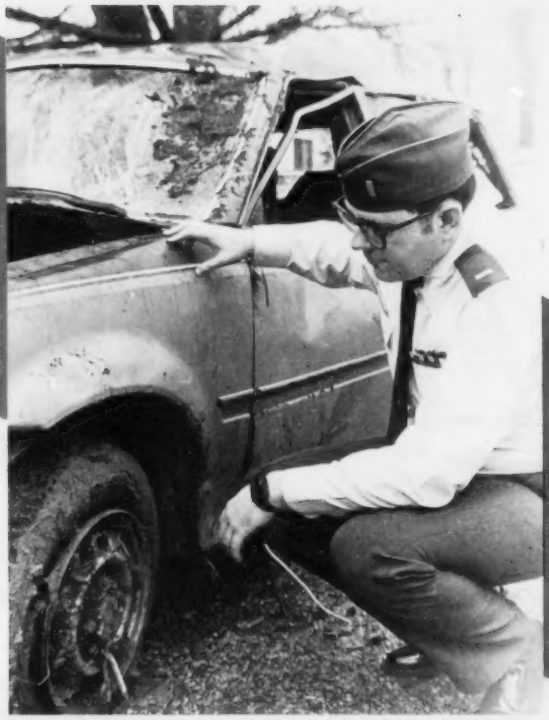
Fortunately for 2nd Lt. Richard E. Chason, a program manager at Air Force Communications Command headquarters, he didn't neglect to buckle his seat belt. Perhaps that's why he is alive today and able to attest to the device's importance.

After adjusting the carburetor of his car on Easter, Lieutenant Chason took it for a test drive. While driving east on Fuesser Road, near Mascoutah, Ill., the lieutenant swerved to avoid a pothole. In the process of avoiding one he hit another. The six-inch-deep pothole caused the left front tire to blow out. "I remember going about 45 miles per hour when I hit the pothole," said Lieutenant Chason. "Before I knew it the car had spun 180 degrees and hit the ditch." The force of the rear end of the car hitting the ditch caused the vehicle to tumble end-over-end.

The car finally came to rest on its wheels a condiderable distance from the road in a cornfield. "I ended up with my legs up on the dashboard, of all places," the lieutenant said. "If I hadn't been wearing my seat belt I probably would have been thrown all over the inside of that car."

Lieutenant Chason has been a firm believer in the use of seat belts over the last 10 years. "Earlier in my military career I used to drive a lot of government vehicles. Since I had to wear my seat belt then, I decided I might as well wear them in my own cars," said Lieutenant Chason. "I'm sure glad I did!"

The lieutenant suffered minor cuts on his back from the windshield and some bruises on his right leg. "I'd say I got out of it pretty well. I can replace a car but my life is another matter," he said.



When this tire struck a pothole, it ruptured, causing the car to go out of control.

Second Lieutenant Richard Chason checks to see if the inside of his car looks as bad as the outside.

The wise traveler always conducts a complete maintenance servicing with heavy emphasis on safety before any long trip. Even if you're not a do-it-yourselfer, pay close attention because you'll be asking somebody else to perform the work.

Here's a checklist to help.

The Pre-Trip SAFETY CHECK

A tune-up is a must before any vacation driving. Even if your car had a complete tune-up last fall, it's always best to check the timing at least twice a year.

Don't forget the air and fuel filters when doing that tune-up. A word of caution: don't wear jewelry when doing maintenance work.

All drive belts should be checked for cracking or fraying and adjusted properly.

CHECKLIST

CHECK:

- ☐ All drive belts
- ☐ Starter connections
- ☐ Alternator connections
- ☐ Radiator hoses
- ☐ Clutch play
- ☐ Radiator cap pressure
- ☐ Manifold heat valve
- ☐ Air conditioning system for leaks
- ☐ Air conditioning refrigerant level
- ☐ Windshield wiper blades
- ☐ Windshield washer system
- ☐ Entire brake system
- ☐ Tire tread depth
- ☐ Shock absorbers
- ☐ Engine mounts
- ☐ PCV valve
- ☐ Sparkplug wires
- ☐ Differential fluid level

REPLACE:

- ☐ Engine oil
- ☐ Oil filter
- ☐ Sparkplugs (points and condenser if your vehicle is old enough to have them)
- ☐ In-line fuel filter
- ☐ Windshield wiper blades
- ☐ Coolant, after flushing and back flushing radiator and block separately

LUBRICATE:

- ☐ Front suspension
- ☐ Universal joints
- ☐ Shifting linkage
- ☐ Wiper linkage
- ☐ Hood release
- ☐ All body hinges

ADJUST:

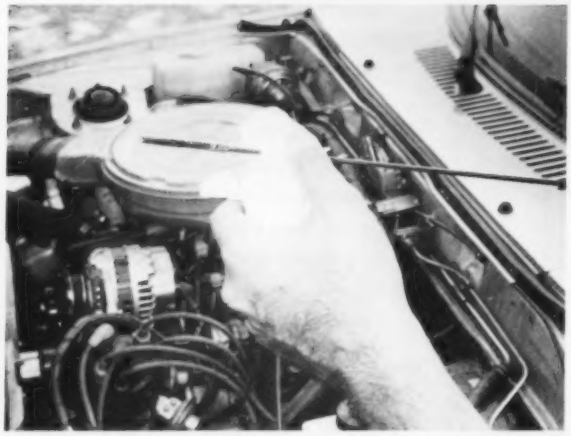
- ☐ Timing
- ☐ Dwell
- ☐ Clutch pedal free travel

CLEAN:

- ☐ Air filter

ROTATE:

- ☐ Tires

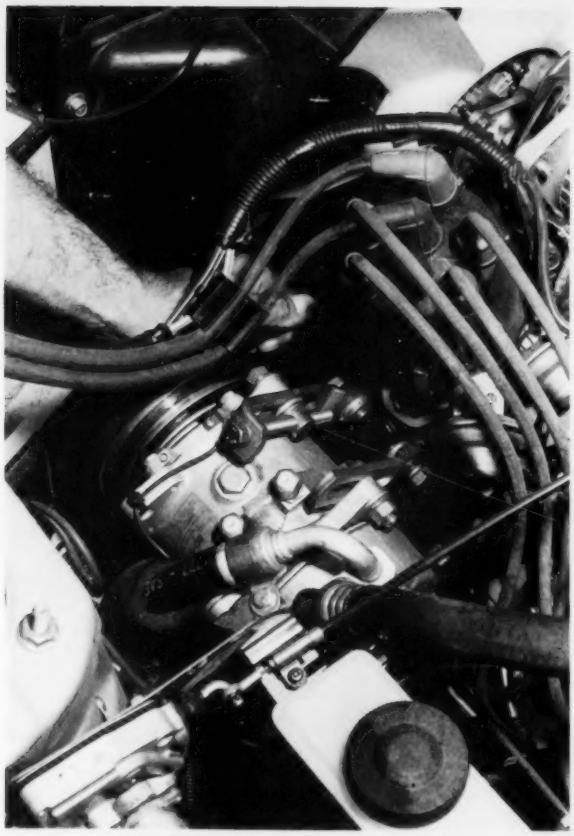


The engine oil and filter should be changed before any long-distance driving.

Also check hoses and replace any that are soft or not in the best condition. Be sure to include the clamps in your inspection.

Make sure all the electric connections are in good condition and corrosion free.

Check the cooling system from top to bottom including the radiator cap. Replace the coolant if it's a year or more old.



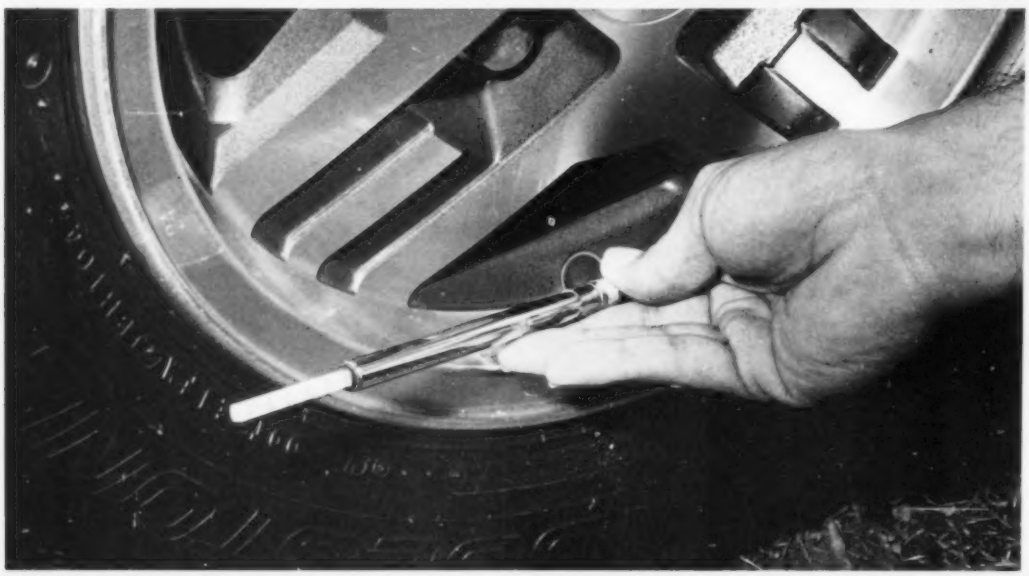
The air conditioning system should be given the thorough check-up, too. Such work usually requires professional servicing.

Windshield wiper blades need to be replaced if more than six months old. And make sure the windshield washers work and the reservoir is full.

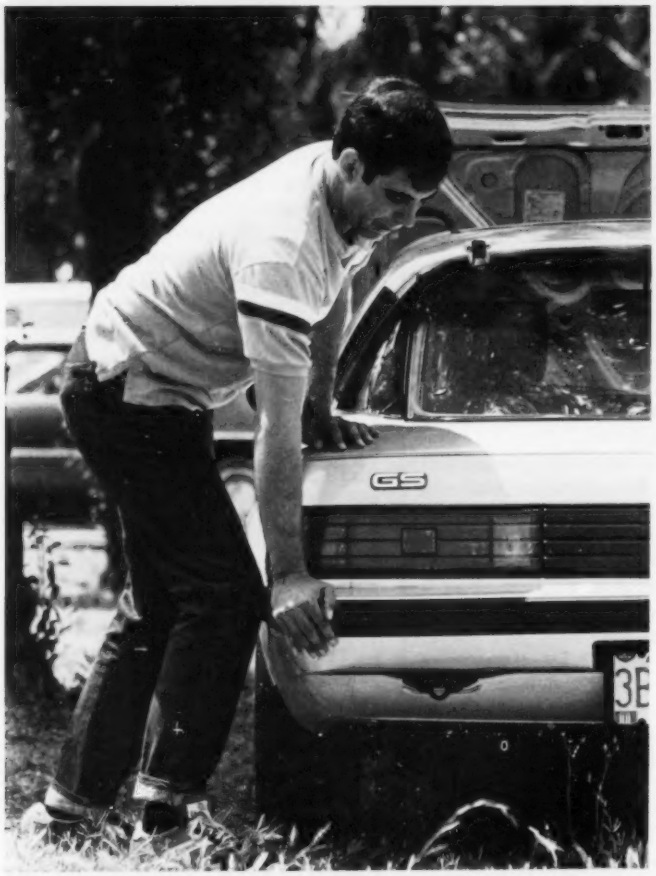
A one-foot square piece of ⅜- or½-inch plywood makes a good base to keep your emergency jack from sinking into the ground. By the way, make sure that you not only have an emergency jack, but that it works.

Give the entire brake system a complete inspection from pads to the master cyclinder.

Most wrenches that come with cars won't loosen wheel lug nuts no matter how hard you try. Invest in a good lug wrench before you get stranded.



(above and bottom next page)
Inspect the tires thoroughly to insure they are in the best condition starting with inflation. Don't forget the spare!



Check the shock absorbers to make sure they are up to the task ahead. The old bounce test is no longer valid; see the January 1985 *DRIVER*.

Once the car is ready for the trip, then it's time to pack an emergency road repair kit for it, just in case. Some of the spares you'll want to carry in your car include wheel chocks, safety triangles or flares, jumper cables, gloves, a first aid kit, electrician's tape, safety wire and a tool kit. The tool kit should include adjustable wrenches, short slot screwdriver, Phillips screwdriver and locking pliers.

In addition you'll also want to have a battery-powered light, sparkplugs, ignition parts, lower and upper radiator hoses, drive belts, heater hose, epoxy sealer, silicone gasket, fuses, carb cleaner and a good fire extinguisher. It's always a good idea to take a shop manual along. Of course, brake fluid and a couple of spare cans of oil can always come in handy.

If your vehicle is exotic enough that you may not find spare parts for it in most small towns, then you may also want to pack whatever parts you know it has an appetite for, such as a fuel pump.

Once you're on your vacation be sure to follow the daily checklist found on pages 9 and 10.

BACKfire

LETTERS to the EDITOR

Address your letters to:

Editor
DRIVER Magazine
AFISC/SEDD
Norton AFB CA 92409

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DRIVER Magazine
AFISC/SEDD
Norton AFB CA 92409

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TRAPPED IN MY SEAT BELT

I was just reading "The Mythical Belt Tales" in your December 1984 issue of *DRIVER* Magazie in the section titled "Chariots Afire," paragraph 4. There you say that "The seat belt buckle mechanism is very simple and easy to unlatch; it will not trap a person."

I feel that I must disagree with you. I drive a 1965 Chevrolet and have used the seat belts in this car since I bought it eight years ago at Torrejon Air Base, Spain. While there one day, I parked the car and pressed the release button on my seat belt and nothing happened. I pressed it again and still nothing happened. I managed to loosen the belt from around my waist and climbed out of it, drove to the base wrecking yard and bought two new (from another car that had not been used) seat belts and installed them. Then about 6 months ago, the same thing happened when I parked my '65 Chevy in my driveway here in Texas. I went to another local wrecking yard and bought both front seat belts from another '65 Chevy that had been rolled up and rubber banded under the seat (these had never been used either) and installed them in my car. This time I really looked closely at the old belts that I had just removed from my car and found that a spring retainer inside the seat belt buckle had broken, preventing it from separating both portions of the buckle.

I always wear my seat belts, when they are available in a vehicle, and have convinced my wife (a Spanish citizen) and our children to wear them. Even though I have had to replace them in my car twice, I'll replace them again if they ever need to be. I won't drive without them.

Thanks for your time and for your great article.

SSgt. Wayne F. Caldwell, USAF
Goodfellow AFB, TX 76908

Seat belts, like so many other safety items, have a shelf life after which they deterioriate, whether they are used or not, and are no longer safe. It would have been better to have replaced your belts with new ones. Even though those you bought at the local junk yard may never have been used, they were old. New belts are available for as little as $20.

ARRIVED ALIVE IN '77

My accident did not occur in 1985 but I thought you might like to know the circumstances. It shows that it can happen even to those of us who are considered professional motorcycle riders.

On February 19, 1977, I was a motorcycle police officer with a major metro police department. I had completed an intensive training course and had been riding for about a year, eight hours a day, five days a week. I had also been riding a personal motorcycle for five years, so I did not consider myself inexperienced.

That morning while working traffic enforcement, I began a high speed pursuit of a vehicle. In a curve at about 45 mph, I encountered gravel on the road surface and could not maintain control. I left the road and was thrown from my big Harley, and I hit a steel guardrail of the type found along interstate highways.

Unknown to me at the time, I had fractured the fifth cervical vertebra in my neck and for about five minutes was paralyzed in my lower arms, from the elbows down. I was lying on the ground looking at my hands in front of my face, and I COULDN'T MOVE THEM! I had also tried moving my legs and couldn't but that was only because my motorcycle was lying on them. Needless to say, I was scared to death to think I was paralyzed. Fortunately, the paralysis was caused by shock to the nerves around my spinal cord and not from damage to the cord itself. After a few minutes, it wore off and I could move again.

It was only later that I found the scar on my DOT approved ¾ shell helmet — the blow that broke my neck came to the top center of the helmet, compressing my spine and fracturing my neck. Had it not been for that high quality helmet, my skull would have been smashed and I have no doubt I would have been dead.

I was also very lucky. I am an exception, as I have never encountered anyone else who has broken their 5th cervical vertebra in a motorcycle accident and is not a para or quadraplegic. Even the doctors were amazed that I was not paralyzed for life in some respect.

I have a personal theory about it. As a police officer, I wore a bulletproof vest under my uniform and usually wore it strapped tightly. I believe the vest provided support to my spine and torso similar to that provided the ankles by combat boots and prevented more serious permanent damage to my spine. This, of course, is not an item worn by the average motorcycle rider, but it does point out

the benefit of protective clothing — the more you wear, the better your chances.

You are more than welcome to print my story if you like. As I said, even "professionals" can lose it. No one is immune.

Incidentally, I still ride motorcycles.

Capt. Timothy G. Hardy, USAF
Moody AFB, GA 31699

GOGGLES EXCELLENT ADDITION

A very effective way to protect your eyes when working around batteries is shown on page 25 of your February issue. It is to wear safety goggles (or a full face shield). The safety goggles shown are inexpensive and unbreakable; an excellent addition to anyone's trunk.

Lt. Col. Robert Cancellieri, USAF
Buzzards Bay, MA 02532-1419

LET'S ALL BE "AIR FORCE MEMBERS"

I have read through your "True Accidents" section quite a few times and I do not understand a few points that you are trying to make. I do not understand why every time you have an accident involving an enlisted person his rank is one of the first things that is mentioned; however, when it involves an officer the rank is never mentioned and the person is only referred to as an "Air Force member." Of course I cannot be absolutely sure that these "Air Force members" are officers but that is the most logical assumption. There is only one other possibility which is that officers never have accidents and I find that a little difficult to conceive. I think that this gives new meaning to reporting bias news and it would be a great attribute to the credibility of the paper to start reporting a little more accurately. I think that if we are going to start identifying rank then it should be done for everyone, and if we are going to be "Air Force members" then let's all be "Air Force members." I would like a reply as to the reasoning behind this and what could be done to get this changed.

AIC Ruggerio, USAF
Moody AFB, GA 31699

We sometimes use "Air Force member" just for variety, in place of some enlisted rank. Officers are always referred to as "officers." Yes, officers do have accidents, but the vast majority of Air Force motor accidents involve enlisted personnel. Of course, they are the majority of the service, but also they are younger, on the average, than the officers, and it is simply a fact that younger people have more traffic accidents. Ask any insurance company — that's the reason younger people pay such high insurance premiums. Please understand that we are on your side; we report these accidents in the hope you will all learn from the mistakes made by others. As for our usage of ranks, we will try to be more consistent in the future so that no more confusion will result.

WHAT HAPPENED?

In your February issue you showed a picture of a "Bell Tourstar" helmet. One big question arises — What happened?

I ride a 83 Honda V-45 Magna 750cc here on Guam and wear a Bell Tourstar helmet. I'm glad to see the helmet will withstand what appears to be substantial impact forces although the face guard broke.

Can you give me any information on the circumstances of the accident? Speed, road conditions, size of individual involved, conditions of accident and any contact with "Bell" about their helmet in regard to the accident.

If the helmet worked as advertised it sure is comforting to know that my money was well spent.

Thanks in advance.

SSgt. John Sayler, USAF
APO SF 96334

The helmet pictured had been run over by the double rear wheels of a truck after the rider had been speeding down a four-lane mountain road, lost control, spilled, hit a guardrail and bounced back out into traffic. The results were of course fatal.

POLARIZED GLASSES VALUABLE

Reference your article "Dimming Glare," November 1984. Are you aware of polarized (non-sunglass-clear lens) glasses being of value in reducing night time glare? Are they worth the seven to 10 dollars you'd pay?

S. Hale
Aurora, CO 80011

You are correct in pointing out the reduction in glare by non-pigmented polarizing glasses. A word of caution is appropriate concerning plexiglass in aircraft canopies, motorcycle windshields, helmet visors — any plexiglass item. Blind spots will result from the use of polarized glasses when looking through plexiglass, so this is not an option in the cockpit. As to the cost . . . that's up to you.

TIRE ROTATION CORRECT?

Your March 85 issue contains an article that raises the issue of proper tire rotation. No mention is made of the specific type of tire. Local automotive centers, tire dealers, and repair centers strongly disagree with Mr. Russ's information being acceptable for all types of tires. My personal experience, and that of the local tire agent, has been that normally non-radial tires can be rotated as indicated. As a rule of thumb radials should only be rotated front to rear, and vice-versa.

If this is not correct, many readers could waste the out-of-the pocket expense of new tires.

Your reply is requested.

TSgt. Henry B. Peterson, USAF
Holloman AFB, NM 88330

According to Uniroyal, "Traditionally, the 'X' pattern was recommended for bias and bias belted tires. The 'front-to-rear' was for radial tires. The reason for using the front-to-rear pattern for radial tires was the belief that reversing the direction the tire rolled could cause objectionable ride disturbances." With today's modern radial tires, Uniroyal found this problem virtually "non-existent."

As DRIVER went on to state in the January 1985 special tire issue, "The best rotation pattern is the one that results in the most uniform wear for your vehicle. Of course, your tire wear patterns will depend on your vehicle, driving habits, road conditions, as well as numerous other facts."

This was the article to which Goodyear was replying with their recommendations seen in the Backfire column of the March 1985 DRIVER. We have every faith that Goodyear knows what it is talking about. It sometimes takes years, however, for people to accept new information that contradicts what they have believed for so long.

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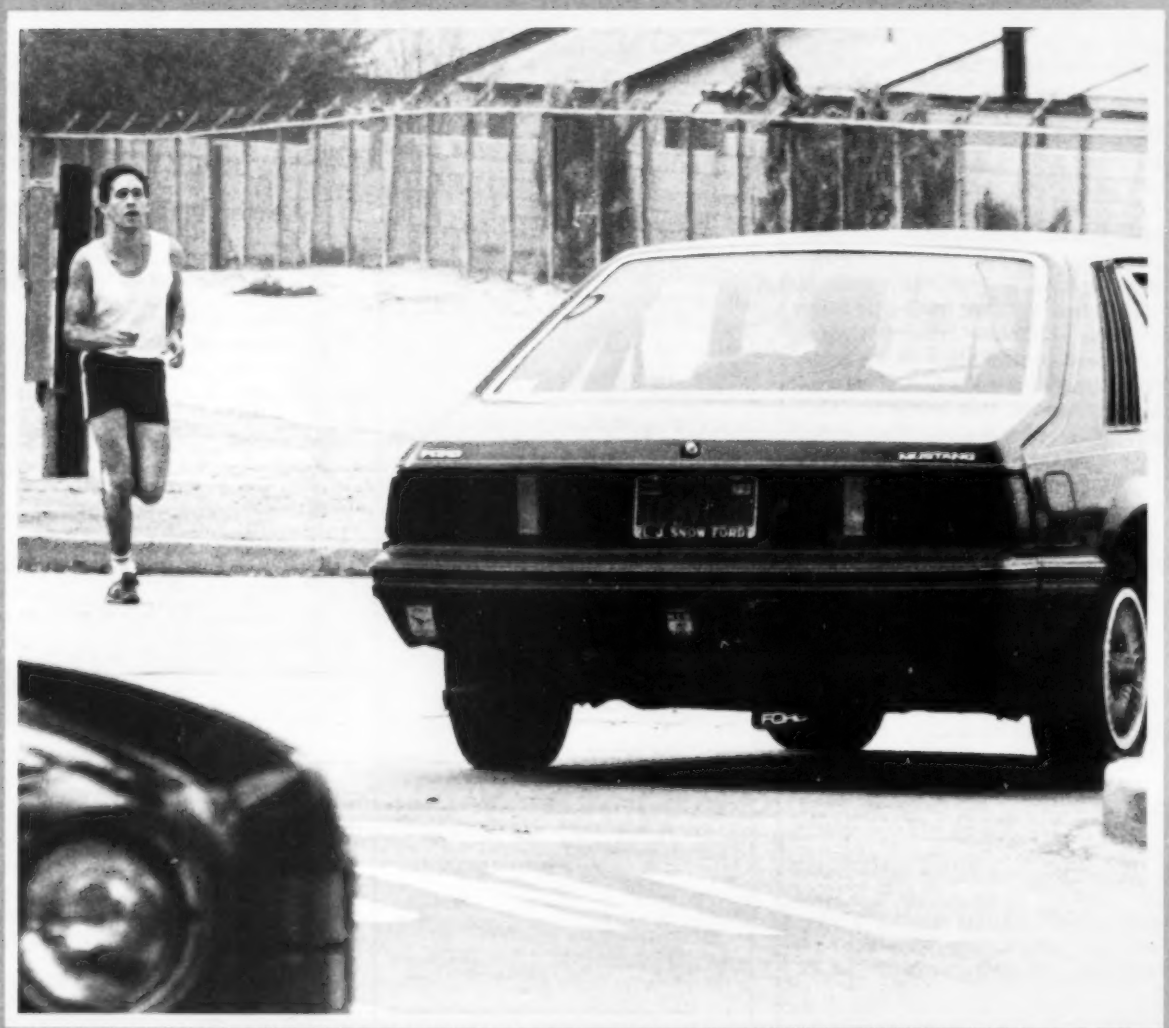
Will He STOP?

This runner is crossing four lanes of traffic at a busy intersection on Norton Air Force Base. The vehicles have the right of way. There is no crosswalk. Nevertheless, the runner does not stop. He expects drivers to watch out for him.

We aren't sure why joggers and runners break traffic laws on the installation that they would never break outside. But they do. So when you're driving on base, observe the speed limits carefully and watch out for the athletes!



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